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LETTERS TO THE EDITOR

THE AUTHORS REPLY

We thank Poole et al. (1) for their comments on our manuscript (2). As we stated, we made certain decisions prior to our analysis that were designed to optimize the comparability of exposure categories in our exposure-response evaluation of alachlor and also to optimize statistical power. These decisions are standard methods (3) and include using the low-exposure group as a reference when substantial demographic differences exist between the exposed category and the nonexposed category, and aggregating disease entities that may be etiologically similar. However, since a plausible counterargument can be made for inclusion of nonexposed cohort members as a reference group and disaggregation of the group "lymphohematopoietic cancers" into its component parts, as suggested by Poole et al., we show the results of these analyses in table 1. While overall risk of all neoplasms is not elevated, as in our earlier analysis, a significant trend in leukemia risk is observed with an increase in alachlor use with either lifetime alachlor exposure days or intensity-weighted exposure days. No meaningful trend was seen for non-Hodgkin's lymphoma or multiple myeloma at this time. As stated in our original manuscript, our results do suggest a possible association between alachlor application and incidence of lymphohematopoietic cancers among applicators in the Agricultural Health Study, which we will continue to monitor as cases continue to accumulate. If these preliminary associations are real, we expect that the strength of the exposure-response association with alachlor will increase as we further refine our disease classification by cell type and genotype.

REFERENCES

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2. Lee WJ, Hoppin JA, Blair A, et al. Cancer incidence among pesticide applicators exposed to alachlor in the Agricultural Health Study. Am J Epidemiol 2004;159:373–80.
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TABLE 1. Rate ratios for selected cancers by lifetime exposure days and intensity-weighted exposure days to alachlor among Agricultural Health Study applicators

	All lymphohematopoietic cancers*,†			All neoplasms			Leukemia			Multiple myeloma			Non-Hodgkin's lymphoma		
	No. of cases	RR‡,§	95% CI‡	No. of cases	RR	95% CI	No. of cases	RR	95% CI	No. of cases	RR	95% CI	No. of cases	RR	95% CI
Lifetime alachlor exposure days¶															
Nonexposed#	65			661	1.0		19	1.0		11	1.0		32	1.0	
0.1–19.9	14	1.0		148	0.85	0.69, 1.06	6	1.20	0.38, 3.85	3	0.82	0.16, 4.36	5	0.50	0.17, 1.50
20.0–56.0	12	0.67	0.27, 1.66	221	1.01	0.84, 1.21	6	0.93	0.29, 2.97	1	0.34	0.04, 2.93	4	0.26	0.07, 0.87
56.1–116.0	16	1.59	0.70, 3.63	180	1.15	0.95, 1.40	4	1.42	0.44, 4.59	2	0.94	0.17, 5.05	8	0.78	0.32, 1.90
≥116.1	26	2.04	0.89, 4.65	206	1.06	0.87, 1.29	10	3.63	1.40, 9.40	5	2.22	0.56, 8.84	10	0.59	0.24, 1.44
Trend**		0.02			0.23			0.03			0.39			0.20	
Intensity-weighted alachlor exposure days††															
Nonexposed#	65			661	1.0		19	1.0		11	1.0		32	1.0	
0.1–101.9	15	1.0		189	0.84	0.69, 1.03	7	1.27	0.45, 3.56	3	0.58	0.11, 3.16	5	0.37	0.12, 1.11
102.0–253.1	12	0.99	0.40, 2.44	188	1.14	0.94, 1.39	7	1.25	0.39, 4.01	2	0.93	0.17, 4.92	3	0.22	0.05, 0.97
253.2–710.4	18	2.14	0.95, 4.83	188	1.21	1.00, 1.46	3	1.09	0.29, 4.02	1	0.47	0.05, 4.23	10	0.95	0.42, 2.16
≥710.5	23	2.42	1.00, 5.89	189	0.95	0.77, 1.17	9	3.61	1.28, 10.2	5	2.36	0.56, 9.93	9	0.55	0.21, 1.42
Trend**		0.03			0.42			0.05			0.42			0.26	

* Result from our original manuscript (2); reference: lowest exposed group.
† Too few Hodgkin's disease cases for exposure-response analysis at this time.
‡ RR, rate ratio; CI, confidence interval.
§ Adjusted for age, sex, alcohol, smoking, education, family history of cancer, enrollment year, state of residence, and five pesticides most highly correlated with alachlor (atrazine, cyanazine, metolachlor, trifluralin, 2,4-D).
¶ Lifetime exposure days; years of use × days per year.
# Reference group.
** *p* for trend test.
†† Intensity-weighted exposure days; years of use × days per year × intensity index.

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